

## INDEX TO VOLUME XLI

- A**DRENAL, effect of secretion of on thyroid, 74.
- Adrenin, effect of on distribution of blood, 513.
- Alcohol, effect of on size of yolk of pigeon's egg, 425.
- , nutritive value of, 258.
- Alkaline-saline solutions, influence of, on blood volume, 229.
- ALVAREZ, W. C. Differences in irritability and latent period in different parts of wall of stomach. V, 321.
- Auricle, time interval of, 309.
- B**ACHMANN, G. The inter-auricular time interval, 309.
- BASSET, G. C. See RIDDLE and BASSET, 425.
- Bathing in the Great Salt Lake, metabolic effects of, 143.
- BENEDICT, F. G. A photographic method for measuring the surface area of the human body, 275.
- , The relationship between body surface and heat production especially during prolonged fasting, 292.
- BERRY, E. L. See HOSKINS, GUNNING and BERRY, 513.
- BILLINGSLEY, P. R. See RANSON and BILLINGSLEY, 85.
- Bioluminescence, studies on, 449, 454.
- Birds, reproduction in, 387, 397, 409, 419, 425, 430.
- Blood, changes of in hibernation, 464.
- , effects of adrenin on distribution of, 513.
- , fat and phosphorus content of in birds, 430.
- , respiratory capacity of in hibernation, 162.
- , gases in hibernation, 162.
- Blood, pressure in experimental pneumonia, 384.
- , —, —, nature of splanchnic rise in, 91.
- , —, —, volume, effect of injections of saline solutions, 189, 219, 229.
- Body surface and heat production, 292.
- , —, —, surface area of, 275.
- BOGERT, L. J., F. P. UNDERHILL and L. B. MENDEL. The regulation of the blood volume after injections of saline solutions. Studies of the permeability of cellular membranes, I, 189.
- , —, —, —, The action of saline-colloidal solutions upon the regulation of blood volume. Studies of the permeability of cellular membranes, II, 219.
- , —, —, —, The influence of alkaline-saline solutions upon regulation of blood volume. Studies of the permeability of cellular membranes, III, 229.
- Bone marrow, as a source of prothrombin, 5.
- BURGE, W. E. Relation between the amount of catalase in the different muscles of the body and the amount of work done by these muscles, 153.
- BURTON-OPITZ, R. Depressor action of the thoracic sympathetic nerve and its branches, 103.
- , —, —, and D. J. EDWARDS. The nature of the splanchnic rise in blood pressure, 91.
- C**ANNON, W. B. and M. CATTELL. Studies on the conditions of activity in endocrine glands. I. The electrical response as an index of glandular action, 39.

CANNON, W. B. and M. CATTELL. Studies on the conditions of activity in endocrine glands. II. The secretory innervation of the thyroid gland, 58.

—, —. Studies on the conditions of activity in endocrine glands. III. The influence of the adrenal secretion on the thyroid, 74.

Catalase in muscle, 153.

CATTELL, M. See CANNON and CATTELL, 39, 58, 74.

Cellular membranes, permeability of, 189, 219, 229.

Cephalin, thromboplastic action of, 250.

Cerebellum, lesions of, 571.

CHASE, C. S. See CHASE and SCHLOMOVITZ, 112.

Chenopodium, oil of, effect on isolated frog heart, 21.

Children, growth of and relationship to physical welfare, 547.

Circulation, influence of iodine and sodium iodide on, 234.

Conduction in irritable tissues, 126.

CRIDER, J. O. and W. W. ROBINSON. The effect of certain procedures upon the course of fatigue in frog's muscle, 376.

**DEPRESSOR** action of thoracic sympathetic nerve, 103.

Diatase in saliva of ox, 483.

DRINKER, C. K. and K. R. DRINKER. The bone marrow as a source of prothrombin, 5.

DRINKER, K. R. See DRINKER and DRINKER, 5.

Ductless glands and hibernation, 173.

Duodenum, regurgitation from, 439.

**EDWARDS, D. J.** See BURTON-OPITZ and EDWARDS, 91.

Egg of birds, development of, 387, 397, 409, 419, 425.

Endocrine glands, conditions of activity in, 39, 58, 74, 492.

Esophagus, frog's, effect of pituitary extract on, 529.

**FASTING**, effect of on heat production, 292.

Fat, growth promoting function of, 361.

Fatigue in frog's muscle, 376.

— of muscle, osmotic change in, 137.

FISHER, H. G. and H. R. MULLER. Unilateral destruction of the semicircular canals in cats, 267.

**GASTRIC** discharge and duodenal regurgitation in dog, 439.

Glands, ductless, and hibernation, 173. Growth, effect of physical welfare on, 547.

GUNNING, R. E. L. Comparative vasomotor reactions in branches of the arterial tree, 1.

— See HOSKINS and GUNNING, 79.

— See HOSKINS, GUNNING and BERRY, 513.

**HARVEY, E. N.** Studies on bioluminescence. II. On the presence of luciferin in luminous bacteria, 449.

— Studies on bioluminescence. III. On the production of light by certain substances in the presence of oxidases, 454.

Heart, effect of oil of chenopodium on frog, 21.

—, pacemaker of, in turtle, 112.

Heat production and body surface, 292.

Hibernation, ductless glands in, 173.

—, effect of on blood, 464.

—, respiratory capacity of blood in, 162.

HIGGINS, H. L. The rapidity with which alcohol and some sugars may serve as nutriment, 258.

HOSKINS, R. G. and R. E. L. GUNNING. Pancreas deficiency and vasomotor irritability, 79.

—, R. E. L. GUNNING and E. L. BERRY. The effects of adrenin on the dis-

- tribution of the blood. I. Volume changes and venous discharge in the limb, 513.
- Hunger mechanism of pigeon, 555.
- I**NFANTS, growth of during first year, 535.
- Internal secretions. See endocrine glands.
- Iodin and sodium iodid, influence of, on circulation, 234.
- Irritability in different parts of stomach, 321.
- L**AURENCE, J. V. and O. RIDDLE. Studies on the physiology of reproduction in birds. VI. Sexual differences in the fat and phosphorus content of the blood of fowls, 430.
- LEVY, R. L. Studies on the conditions of activity in endocrine glands. IV. The effect of thyroid secretion on the pressor action of adrenin, 492.
- Light, production of by certain substances in the presence of oxidases, 454.
- LILLIE, R. S. The conditions of physiological conduction in irritable tissues. III. Electrolytic local action as the basis of propagation of the excitation-wave, 126.
- LIVINGSTON, A. E. See SALANT and LIVINGSTON, 21, 234.
- Luciferin in luminous bacteria, presence of, 449.
- M**CCOLLUM, E. V., N. SIMMONDS and W. PITZ. The distribution in plants of the fat soluble A, the dietary essential of butter fat, 361.
- , —, —. The vegetarian diet in the light of our present knowledge of nutrition, 333.
- MCLEAN, J. The thromboplastic action of cephalin, 250. •
- Man, studies on the growth of, 535, 547.
- MANN, F. C. The ductless glands and hibernation, 173.
- MATTILL, H. A. See MATTILL and MATTILL, 143.
- MATTILL, H. I. and H. A. MATTILL. Some metabolic effects of bathing in the Great Salt Lake. II, 143.
- Medulla oblongata, experimental lesions of, 571.
- MENDEL, L. B. See BOGERT, UNDERHILL and MENDEL, 189, 219, 229.
- Melanophores, a device for recording responses of, 597.
- , response of to stimulation, 577.
- Metabolic effects of bathing in the Great Salt Lake, 143.
- MOORE, A. R. Cryoscopic measurement of the osmotic difference between resting and fatigued muscle, 137.
- MORSE, W. E. The relation of acid to gastric discharge and duodenal regurgitation in the dog, 439.
- MULLER, H. R. See FISHER and MULLER, 267.
- Muscle fatigue in frog, 376.
- , catalase in, 153.
- , osmotic difference between resting and fatigue 137.
- N**EWBURGH, L. H. and W. T. PORTER. The blood pressure in experimental pneumonia, 384.
- Nutrition, effect of vegetable diet upon, 333.
- Nutritive value of alcohol and some sugars, 258.
- O**X, diastase in saliva of, 483.
- Oxidases and production of light, 454.
- P**ACEMAKER in turtle's heart, localization of, 112.
- PALMER, C. C. The diastase in the saliva of the ox, 483.
- Pancreas deficiency, effect of on vasomotor irritability, 79.
- PIKE, F. H. See WILSON and PIKE, 571.

- Pituitary extract, effect of on frog's esophagus, 529.
- PITZ, W. See McCOLLUM, SIMMONDS and PITZ, 333, 361.
- Plants, distribution in, of growth promoting fat, 361.
- Pneumonia, experimental, blood pressure in, 384.
- PORTER, W. T. See NEWBURGH and PORTER, 384.
- Prothrombin, source in bone marrow, 5.
- R**ANSON, S. W. and P. R. BILLINGSLEY. Vasomotor reactions from stimulation of the floor of the fourth ventricle. Studies in vasomotor reflex arcs. III, 85.
- RASMUSSEN, A. T. A further study of the blood gases during hibernation in the woodchuck (*Marmota Monax*). The respiratory capacity of the blood, 162.
- The corpuscles, hemoglobin content and specific gravity of the blood during hibernation in the woodchuck (*Marmota Monax*), 464.
- Reproduction in birds, physiology of, 387, 397, 409, 419, 425, 430.
- RIDDLE, O. Studies on the physiology of reproduction in birds. I. The occurrence and measurement of a sudden change in the rate of growth of avian ova, 387.
- Studies on the physiology of reproduction in birds. III. On the metabolism of the egg yolk of the fowl during incubation, 409.
- See LAWRENCE and RIDDLE, 430.
- See SPOHN and RIDDLE, 397.
- and G. C. BASSET. Studies on the physiology of reproduction in birds. V. The effect of alcohol on the size of the yolk of pigeon's egg, 425.
- and A. A. SPOHN. Studies on the physiology of reproduction in birds. IV. When a gland functions for the first time is its secretion the equivalent of subsequent secretion? 419.
- ROBERTSON, T. B. Studies on the growth of man. III. The growth of British infants during the first year succeeding birth, 535.
- Studies on the growth of man. IV. The variability of the weight and stature of school children and its relationship to their physical welfare, 547.
- ROBINSON, W. W. See CRIDER and ROBINSON, 376.
- ROGERS, F. T. Contribution to the physiology of the stomach. XXXIX. The hunger mechanism of the pigeon and its relation to the central nervous system, 555.
- S**ALANT, W. and A. E. LIVINGSTON. Experiments with oil of chenopodium and cardiac stimulants on the isolated frog heart, 21.
- The influence of iodine and sodium iodide on the circulation, 234.
- Saline-colloidal solutions, action of upon blood volume, 219.
- Saliva of ox, diastase in, 483.
- SCHLOMOVITZ, B. H. and C. S. CHASE. Localization of a primary pacemaker in the turtle's heart, 112.
- Secretions, internal. See endocrine glands.
- Semicircular canals, unilateral destruction of, 267.
- SIMMONDS, N. See McCOLLUM, SIMMONDS and PITZ, 333, 361.
- SPAETH, R. A. A device for recording the physiological responses of single melanophores, 597.
- The responses of single melanophores to electrical stimulation, 577.
- Splanchnic rise in blood pressure, 91.
- SPOHN, A. A. See RIDDLE and SPOHN, 419.
- and O. RIDDLE. Studies on the physiology of reproduction in birds. II. On the chemical composition of

white and yellow egg yolk of the fowl and pigeon, 397.

Stomach, contribution to physiology of, 555.

—, irritability of, 321.

Sugar, nutritive value of, 258.

Surface area of human body, photographic method for measuring, 275.

Sympathetic thoracic nerve, depressor action of, 103.

**THROMBOPLASTIC** action of cephalin, 250.

Thyroid, influence of adrenal secretion on, 74.

— secretion, effect of on pressor action of adrenin, 492.

— secretory innervation, 58.

Tissues, irritable, conduction in, 126.

**UNDERHILL, F. P.** See **BOGERT, UNDERHILL and MENDEL**, 189, 219, 229.

**VASOMOTOR** irritability, effect of pancreas deficiency on, 79.

— reactions, 1.

— — from stimulation of fourth ventricle, 85.

— reflex arcs, 85.

Vegetable diet and nutrition, 333.

**WADDELL, J. A.** The effect of pituitary extract on the frog's esophagus, 529.

**WILSON, J. G. and F. H. PIKE.** Some unusual experimental lesions of the cerebellum and medulla oblongata, 571.

Work, effect on catalase in muscle, 153.